

## ABSTRACT OF THE DISCLOSURE

A radio network can select a route of minimum path loss among entire relay routes and can set the relay route satisfactorily resistive against interference. The radio network has a core node connected to a wired network, relay nodes each relaying at least one of a down-link data packet transmitted from the core node and an up-link data packet directed toward the core node, and a terminal station capable of transmission and reception of data packet with both of the core node and the relay node. The relay node has total path loss to be minimum at least one of between relay nodes includes in a relay route of the data packet and between the relay node and the core node.

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